Installation and Operations Manual RIHO baths (whirlpools)

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1.0 Installation of Riho Whirlpools

The Whirlpool baths are fully in conformity with the applicable EN and national guidelines.
The installation must be fitted by a recognised installer.
The assembly and installation of the whirlpool must be done in accordance with the instructions described in this manual.
The installer will be responsible to check that the civil, electrical and water-related pre-installation work is done properly.

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1.1 Safety regulations for bathrooms.

Electrical sockets, lamps, switches and/or other electrical equipment should be installed outside the danger zones indicated in the national guidelines and standards. Above all, the regulations prohibit the presence of any electrical installation within 60 cm around the bath, and less than 225 cm above it (see Fig.1). The switch and other electrical devices should be installed so as to be inaccessible to the person using the whirlpool.

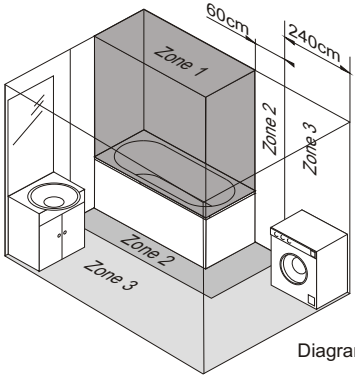

Diagram fig. 1 Safety distances.

THE MANUFACTURER REFUSES TO ACCEPT ANY LIABILITY IN THE FOLLOWING CASES:

- the national guidelines and standards that apply to earthing, potential difference equalising and electrical installations in the bathroom are not adhered to.
- the description contained in the national laws and standards that apply to safety in bathrooms are not adhered to.
- the instructions described in this manual are not adhered to.

Parts are dismantled after inspection in the factory to facilitate transport and to enable it to be carried into the room in which it is to be installed. It is advisable to check all the components of the bath before installation.
Any damage claimed after installation will not be covered under the guarantee.

1.2 Whirlpool installation

All Riho Whirlpool baths are made of acrylic (see description: acrylic baths) and equipped with a Whirlpool bath as per customer's choice.

Please refer to the Riho price lists for details of all options.

1.3 Delivery:

Generally, all whirlpool systems are fully installed, functionally tested and packed.

All Whirlpool baths are supplied with a flexible PU drain-overflow, which in some cases is not fitted when delivered.

ATTENTION! Before installation, check the bath for damage, as well as material and/or manufacturing defects. For this remove, the cardboard packaging. In order to prevent damage during installation, allow the foil to remain as long as possible and remove it only at the last moment. After installation, Riho can only give a guarantee on hidden material defects. Check the foil for scratches and damage if any. If these are present, check the bath itself to see whether it is damaged. For this, remove as little foil as necessary in order to protect the bath as properly as possible during installation. In case of doubt, consult a plumbing specialist.

WARNING; make sure chrome parts don't come into contact with materials or water used to remove building materials, such as mortar, grout or tile adhesive because of possible chemical components in the composition which can damage the chrome surface.

1.4 Pre-installation actions

The installer must ensure the presence of the following structural facilities among other things:

- Ventilation grid for the motor(s) of at least 100cm².
- A 2nd ventilation grid for natural ventilation (to the extent possible, they should be placed as far apart as possible).
- Inspection hatch(es) of at least 40 x 50cm for service access (at least to the motors). Riho recommends that an inspection hatch should be placed near the overflow opening.
- Hot and cold water supply.
- Water drain
- Electrical connection, **one** or **two** groups of 230V/50Hz 16Amp with earth leakage switch, dependent on your options (option heater). Also see chapter 1.5.6
- Potential difference equalisation 6 mm² earth connection to whirlpool frame.
- Splash-proof rim around the whirlpool.

The installer should pay special attention to the following points before installing the bath:

- Check the bath and the whirlpool for possible defects before installation. No dismantling costs will be paid in the case of defects found after installation. After installation, Riho can only give a guarantee on hidden defects.
- When transporting and installing the bath, do not hold it by the pipes, hoses and jets.
- Check the whirlpool for leaks before installation.
- The whirlpool bath must be clear of the wall, so that unavoidable vibrations caused by the motor are not transferred to it. The use of bath insulation tape between the bath rim and walls is recommended this will reduce the noise level.
- If plastic panels are installed, pay attention to the height of the panel with respect to the bottom edge of the bath. The panel should be at least 5mm from the floor, for ventilation purposes.
  In case of doubt, consult a plumbing specialist.

1.5 Bath installation:

- A metal support frame with 4 or more adjustable legs will be supplied with the bath. The adjustable legs will be provided separately, depending on the packing method. If necessary the legs must be installed (see fig.2, leg installation diagram). With the adjustable legs, ensure that the bath is properly levelled and at the right height and do not forget to tighten the lock nuts afterwards. Check to ensure that all the legs are resting properly on the floor.

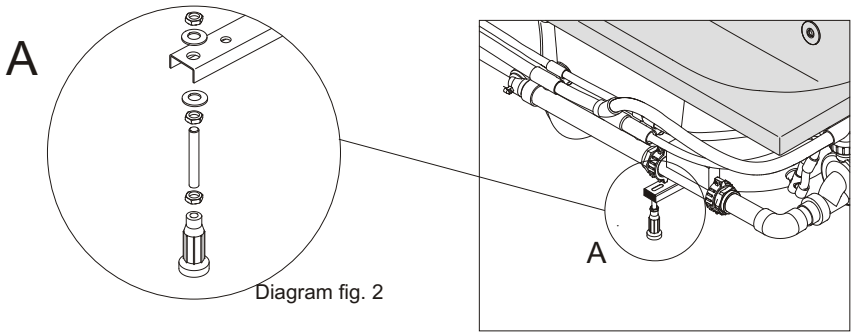

Diagram fig. 2

- If necessary, install the overflow-drain combination in the bath. Check whether all the components are properly mounted according to the attached installation specifications of the manufacturer.
- The bath may be fixed on the wall with a wooden lath (see Fig. 3 wall mounting) or using the clips provided (alternative) that are fixed to the wall as shown on the next page. This mounting method is valid for installing the bath against tiles It is not advisable to have the tile edge on the bath as this could make access to installed mechanical and electrical components difficult.
- Level the bath properly.
- Connect the bath to the drain pipeline.

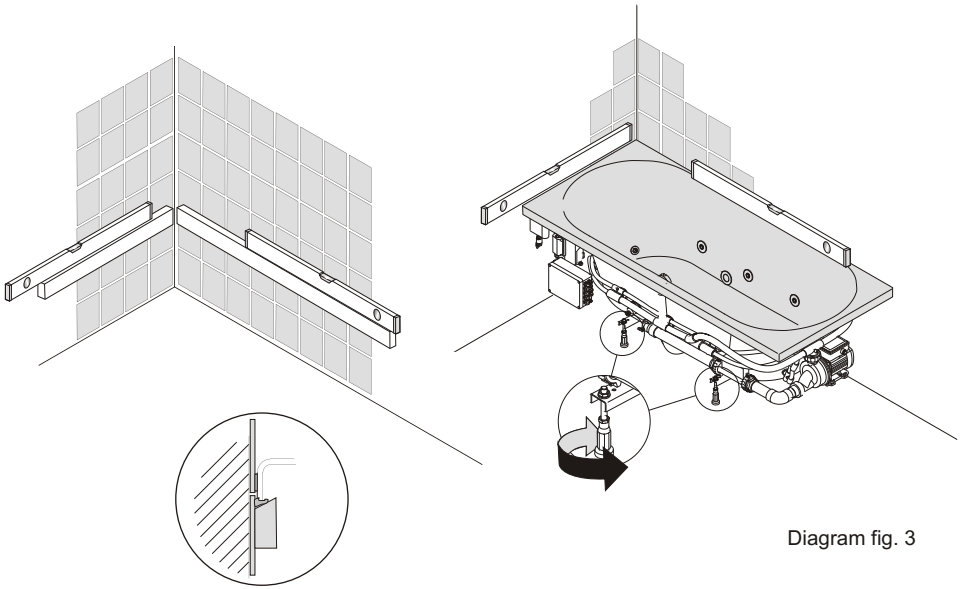

Diagram fig. 3

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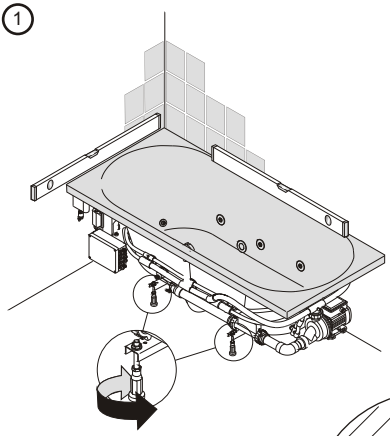

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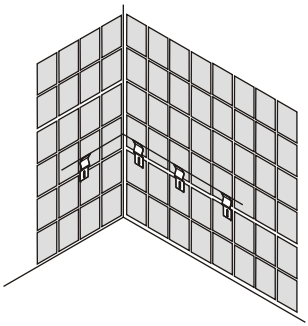

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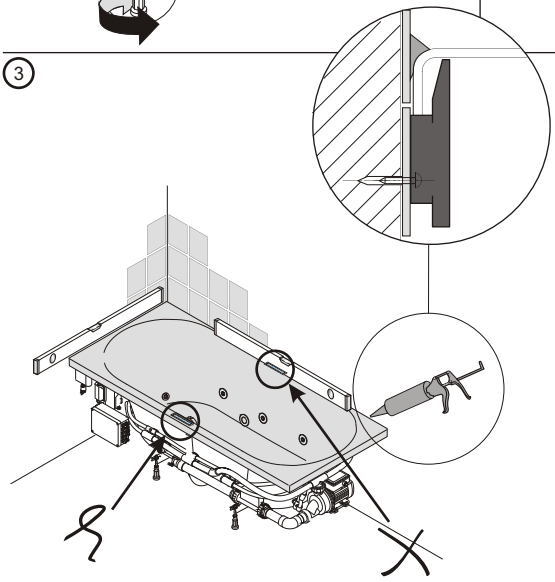

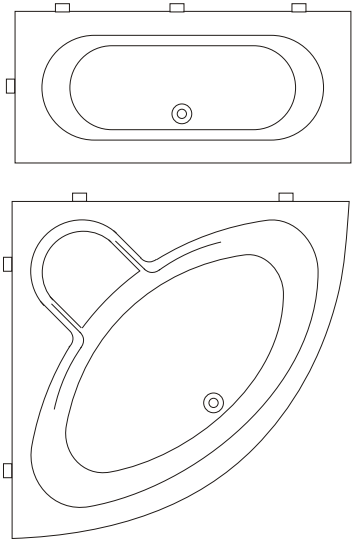

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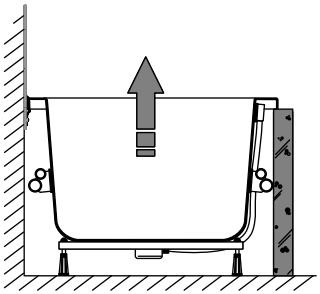

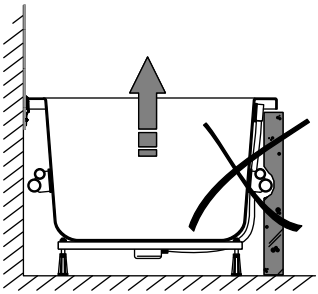

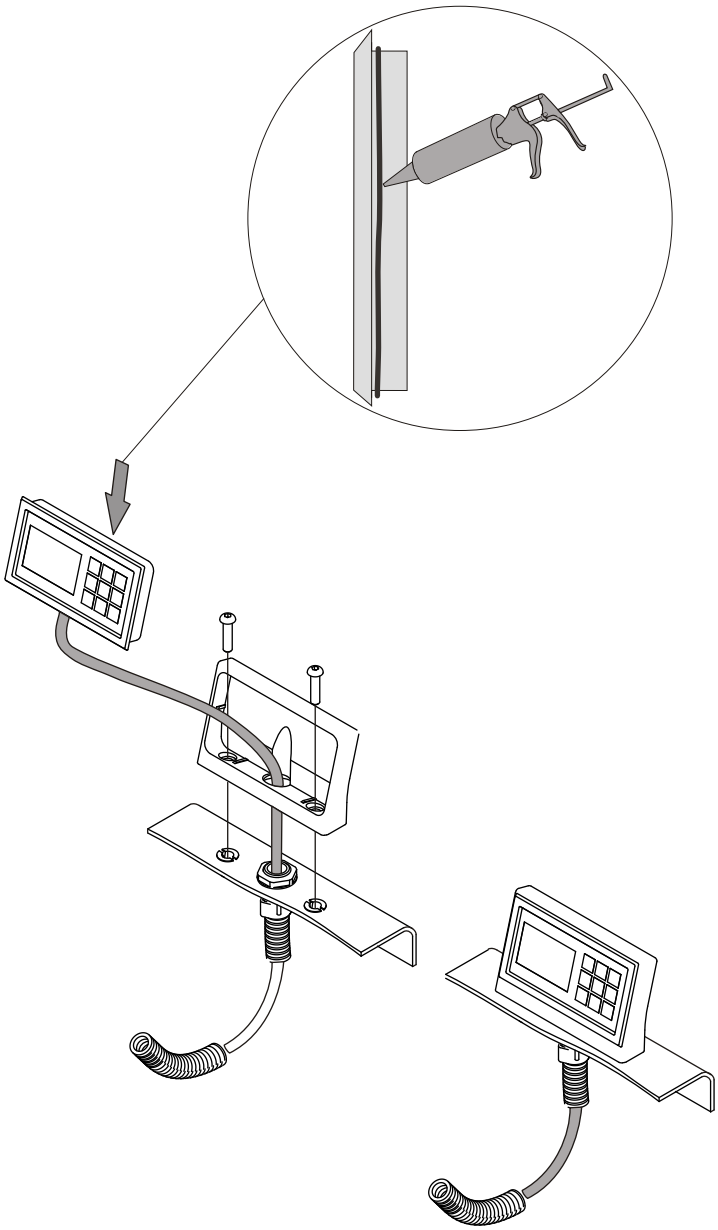

- Fill half the bath with water and check whether the bath is still horizontal. This is necessary. Use the adjustable legs for correction. Check whether the drain pipeline connection is watertight and then top up the bath up to the overflow outlet. Allow the same to overflow and check the sealing and proper drainage of water via the overflow connection.

- The open sides of the bath may be finished with plastic panels or with a tile wall. This may be done for the entire rim, or only in certain sections.

- For sealing the bath joints, only use acid-free silicon sealant suitable for plumbing applications.

- The bath may be placed in several ways:
  - The bath may be placed against the tiles of the wall. Apply silicon sealant all around the rim to absorb the movements of the bath if any. This 4 to 5 mm a space is required to absorb the torsional forces acting on the rim of the bath.
  - When the bath is finished with a wall on the underside instead of a plastic panel, there should be a joint between the top of the wall or row of tiles and the bottom of the bath of 4-5mm. This joint must also be sealed.

The silicon sealant provides a good watertight finishing join and allows the bath to expand to some extent. It is also necessary to fill the bath with water up to the overflow rim and to ensure that the bath is resting properly on all its legs before you start sealing.
In case of doubt, consult a plumbing specialist.

1.5.1 Ventilation grid.

In order to ensure optimum operation of the motor(s), it is necessary to install a ventilation grid in the edge or in the wall under the bath. This grid must be splash-proof and placed so that splashing water does not find its way under the bath. The minimum effective flow surface of the grid must be 100cm², and should not vent in places where the temperature is less than +15°C and more than +35°C. (See Fig. 4:
In case of doubt, consult a plumbing specialist.

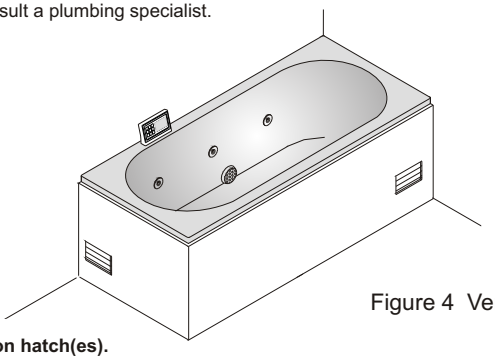

Figure 4 Ventilation grid.

1.5.2 Inspection hatch(es).

To enable maintenance the tub panel or wall must be fitted with a splash-proof hatch with a size of at least 40x50cm. To be able to service the motors, it is necessary to fit a hatch for each separate motor. See figure 5. You can order Riho magnet tile inspection hatch sets from your dealer, Riho part no. ZA 110000000005. The Riho maintenance service cannot service the motors if there are no inspection hatches or if the hatches are too small. For the best accessibility to the system Riho advices you use synthetic front panels (if available for the bath type).
If in doubt, contact a specialist.

1.5.3 Panels

Where panels are used, do not seal them. They must be removable.

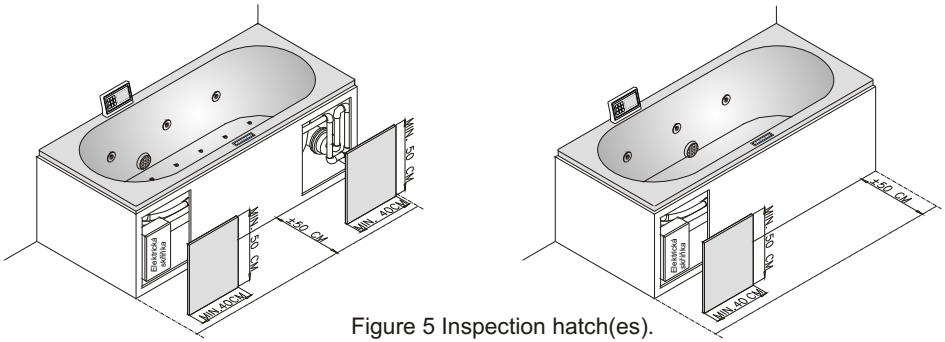

Figure 5 Inspection hatch(es).

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1.5.4 Hot and cold water supply.

The supply pipelines may be installed on the rim of the bath or on the wall for connection to the bath tap. A drainage overflow installation with water supply can also be supplied. Ask your dealer for Riho overflow-drain combinations with water supply in the bath. **Maximum allowable water temperature is 60°C**

In case of installation of a drainage overflow installation with water supply in the bath, an aerator water supply should be installed in the supply line. This is to prevent dirty water from flowing back into the supply pipeline.
In case of doubt, consult a plumbing specialist.

1.5.5 Water drain

Connect the drain pipeline with siphon to the bathroom drain pipeline (min 40 mm). The bathroom drain pipeline must be positioned at around 25-35 cm from the centre line of the bath's drain, and should have sufficient drainage so that adequate drainage is ensured (see fig. 6). In case of doubt, consult a plumbing specialist.

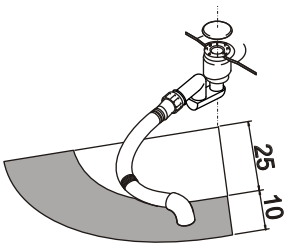


Fig. 6:

1.5.6 Electrical connection

The electrical supply for the installation should be provided with suitable cable using a fixed junction box suitable for environment. For this purpose, the whirlpool is delivered with a 3x1.5mm² or 5x2.5mm² cable with a red warning label (5x2,5mm² if with heater or Thermae line).
Connection of the whirlpool should be made to one group of 230V/50HZ in case of cable 3x1.5mm² or two groups (combined on-off) of 230V/50Hz in case of cable 5x2.5mm². Each cable must be secured by a suitable circuit breaker 10A (cable 3x1.5mm²) or 16A (cable 5x2.5mm²) normally with characteristic C.
An earth leakage circuit breaker of 30mA as well as a potential difference equilisation 4-6mm² on whirlpool frame are obligatory part of the installation. The local electricity rules and regulations must be met. In case of doubt, consult your plumbing specialist.

1.5.7 Potential difference equaliser
The metal frame of the whirlpool must have a potential difference connection. For this purpose a special metal connector suitable for an earth cable of 2.5 mm² to 6mm² is fitted to the frame.

2.0 Riho Acrylic (PMMA) baths (Whirlpools)

All Riho baths are made of acrylic (polymethyl methacrylic) and supported in the bottom with chipboard and reinforced with glass fibre polyester.
Acrylic is a plastic and coloured all the way through.
The properties of acrylic provide the user with the maximum bathing comfort, provided the appropriate installation and maintenance instructions are duly followed.

3.0 Maintenance

- Thanks to the non-porous, smooth surface of the material, dirt will not or will hardly stick to the material. Maintenance can be limited by cleaning the bath after use with a wet sponge or cloth and a liquid cleaner (without abrasive material).

- The repair of small cracks and similar damage to the bath.
If you want to repair minor damage, due care is recommended. You may proceed as follows:
If there are fine scratches, it will be adequate to use a chrome and lacquer polisher (solvent and abrasive free). If the result of this is not satisfactory, you may sand off the damage with waterproof sandpaper no. 600 and then with waterproof sandpaper no.1000. Reprocess with a chrome and lacquer polisher for a perfect end-result and your bath will be as good as new.
A complete set may be obtained from Riho International bv (Article no.: REP400).
You may repair your bath yourself at your own risk.

- Major damage, deep scratches, holes and even cracks may be repaired and can almost be made to disappear. It is recommended that these should be repaired by specialised technicians.

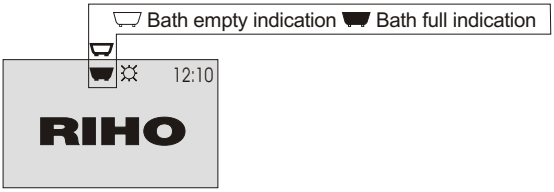
4.0 Operation

Do not touch, handle or use electrical devices when using the whirlpool. This is extremely dangerous to the user.

When at rest the LCD screen must show the RIHO logo. After 30 minutes without use the background lighting will switch off.

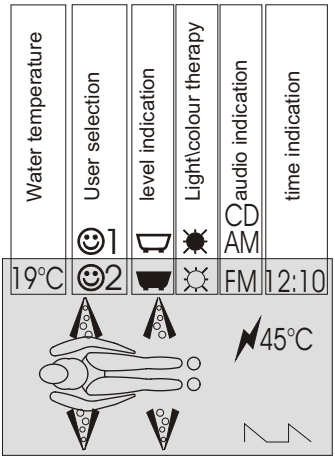
Before starting the Whirlpool bath, fill the bath to 5 cm above the highest jet (hydro-system) and to about 15 cm below the rim (aero-system). The bath indication will then show full.

As a protection, the system will switch off automatically after 20 minutes, unless the system is switched off manually in advance.

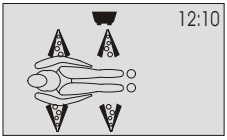


4.0.1 Display indicators.

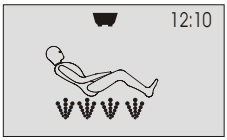
The first row of the display shows the indicators. The various indicators on the display depend on the options and system that you have purchased.



In addition to the programming mode the other part of the display gives information on the status of your ground and hydro system, see example below.
When both the ground and hydro system are active the status of the ground and hydro system are displayed alternately. If neither of the two systems is active the Riho logo is displayed. The precise display depends on the system you have chosen.



Hydro-system.



Ground system.

There are two ways of operating the whirlpool system.

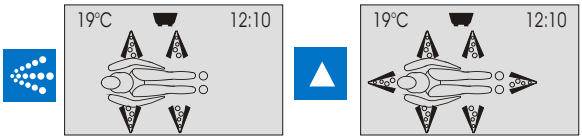
- Operation with personal preference settings. There are a maximum of 6 preferences to select and program. All options of the whirlpool such as light on/off, hydro on/off, pulsation position and duration of pulse can be set as required. By calling up your personal preferences the system will start operating with the preferred settings. Calling up can be by keeping ▼ or ◀ pressed down, or via short ⏻ on menu. Switching off can be achieved in the same way by keeping ▼ or ◀ pressed down or by selecting menu button ⏻ and then ■. When the system is in operation you can always manually change, switch on or switch off functions.
- Manual operation of whirlpool system and options. This is achieved by the basic functions buttons and via the button options menu, e.g. heating. It is possible to switch off all functions via the ⏻ menu and then ■.

4.1 Basic functions

4.1.1 Hydro-system.

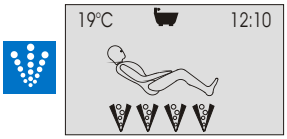
This pushbutton is used to switch the hydro system on and off.
- Short press, switch system on/off.
- Long press, see user options

In the case of the hydro-whirlpool system with back and foot jets that are separately connected by a valve, or are controlled by a pump, the ▲ button can be used to move through the various combinations one after the other.



4.1.2 Ground system.

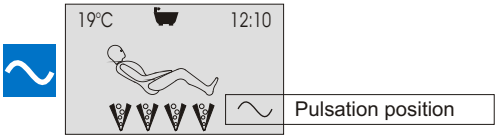
This pushbutton is used to switch the ground system on and off.
- Short press, switch system on/off.
- Long press, see user options.



4.1.3 Pulsation positions.

This pushbutton is used to adjust the speed of the motor for a pulsation effect. The display shows when the pulsation starts. The display has two of these buttons. The pulsation button operates the system to the left of this button.
The following description applies to both buttons, which can be operated independently.
- First push, the system automatically pulses water between 35% and 100% for a period of about 8 seconds. The display shows pulsating waves.
- Second push, the system operates automatically at the speed at the moment when the button is pushed.
- Third push, the system automatically returns to 100% operation and begins to pulse automatically again. See first push.
- Switch off the pulsation position by pressing and holding down the pulsation button.

If you start with this button instead of or , the system will then start pulsating directly.
If you require both pulsations to be on, this is then possible. The pulsation effects of each system run synchronously with each other for maximum effect.



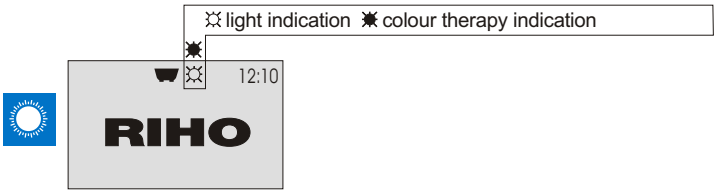
4.1.4 Diverse options

- Light function option.
Switch on only if there is sufficient water (bath full indication).
The light will switch on after pressing the light pushbutton once. The light function will switch off after 20 minutes.
If the light function is on and the water level drops (2 seconds), the light function will switch off.
If the light function is switched on and the whirlpool motor is started, the time for the light function will be set at the running time of the motor + 5 minutes. In other words, after the running of the whirlpool motor is completed, the light will remain on for another 5 minutes. If the motor is switched off between times, the light function will switch off 5 minutes later.
The light will switch off after pressing the light button briefly.

Technical info: The light exists of LED lights. LED lights have a very long lifecycle and therefore don't have to be replaced. In case the color therapy is malfunctioning, it can only be replaced or repaired by a certified installer.

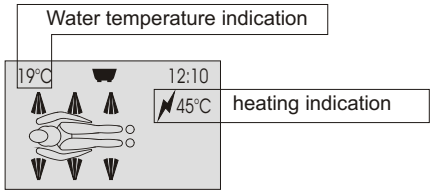
- Colour therapy option
Switch on only if there is sufficient water (bath full indication).
When the light button is held down colour therapy switches on. Colour therapy will switch off after 20 minutes.
If you press the light button during colour therapy the colour changing stops. If you press the button again colour changing restarts. If you wish to stop the function earlier then hold down the light button and the colour therapy will be turned off.
If the colour therapy is on and the water level drops (2 seconds), the colour therapy will switch off.
If the colour therapy is switched on and the whirlpool motor is started, the time for the colour therapy will be set at the running time + 5 minutes. In other words, after the running of the whirlpool motor is completed, the light will remain on for another 5 minutes. If the motor is switched off between times, the light will remain on for another 5 minutes. If the motor is switched off between times, the colour therapy will switch off 5 minutes later.

Technical info: The color therapy exists of LED lights. LED lights have a very long lifecycle and therefore don't have to be replaced. In case the color therapy is malfunctioning, it can only be replaced or repaired by a certified installer.



4.1.5 Heating option

If the whirlpool system is fitted with heating a heating unit is installed in the suction pipe of the Ist hydromoter. This unit can only provide heat if water is actually flowing through it. The 1st hydro system must therefore be switched on. When you have switched on the heating unit, this is displayed on the screen (for hydro function) by the symbol 45°C. This symbol also indicates the required temperature that is set. As soon as the required water temperature (see water temperature indication) is reached the heating switches off automatically.
If the temperature drops, the heater will automatically go back on. To measure the temperature of the water a temperature sensor is located near the heating unit.
The heater option is designed to heat the water to maintain temperature and not to bring cold water, for example 19 °C to 45 °C.



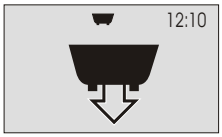
4.1.6 Cleanpool option.

If both buttons are pressed simultaneously for two seconds the cleanpool function starts, provided that the level indication shows full and there is sufficient liquid in the reservoir and no other function is active (no light). All jets must be completely under water.

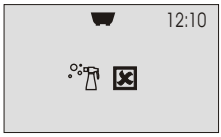
1: Display shows clean function and countdown timer.
2: After 8 seconds all motors and valves are switched on.
The motor of the aero-system on the other hand switches alternately on and off (20 seconds.
This is to achieve a cleaning process in the aerojet housing.
3: After 7 seconds the cleanpool switches on for 3 seconds.
4: The motors stop after 1½ minutes with circulation pumping prior to a pause of 30 seconds
5: The motors are restarted for 1½ minutes. The motor of the aero system should then start switching off and on alternatively again
6: End of cleaning function, system returns to rest.
7: The display shows that your bath needs to be evacuated and that the water contains cleaning material and is therefore not suitable for bathing.

Note:
If the water level drops the cleaning cycle stops.
If you wish to end the cleanpool function earlier press once on one of the two buttons ▼ or ▲.

Display clean function with countdown timer



Display bath evacuation. You will not be able to use any function until the system is evacuated.



Warning
No cleaning fluid present

4.1.7 Run dry function

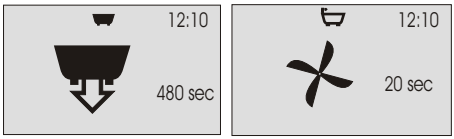
If both buttons are pressed down simultaneously for 2 seconds the run dry function starts if there is **"no"** water in the bath (bath empty indication).
The following occurs automatically:
- The display shows the run-dry function.
- The shut off valve opens after 5 seconds
- The hydro motors will be switched on for a few seconds.
- The aero-motor will be switched on for 45 seconds.
- The motors then stop and the display shows RIHO again.

Manual run-dry function

Automatic run-dry function:
If you take a bath and the level sensor is covered with water for 5 minutes (bath full indication), the automatic run-dry function (8minutes) will start after the bath is emptied. During the 8 minute waiting period the LCD screen will display the countdown time. The run-dry function will then start.

Attention: This function may be switched off by a dipswitch at the time of installation.

Automatic run-dry function



4.2 Menu functions

Beneath this button there are extra functions for switching on and off. This depends to a great extent on the system that you have bought and the options associated with it. This section describes all the possibilities, but if you don't have the options that are discussed then the option functions will not appear on the screen.
ATTENTION: The button has several functions. If you press and hold down this button you access a programmer menu that will be discussed later.

4.2.1 Short menu (select menu options).

If you press this button briefly the following screen appears:

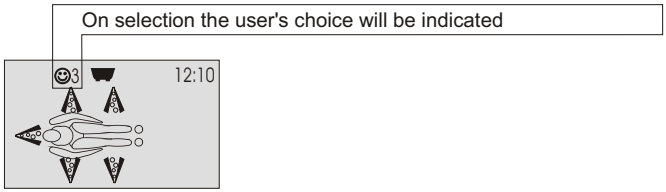
Short

Stop all functions
User selection
Audio FM/AM/CD
heating
Turbo
Exit (close menu)

With the ▲ or ▼ button you can select another function. As soon as the correct setting is shown you can select this function with the OK button.

Stop all functions:
Hydro, ground system and light etc switch off.

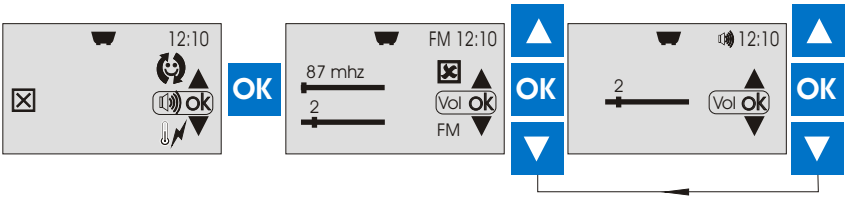
User selection (user1 to 6):
This function is used to select pre-programmed system settings. You can, for example, set your own personal pulsation position, set light selection, etc. User programming is carried out in the extended menu, see extended menu section.



You can also choose a user by holding down ◄ or ▼.

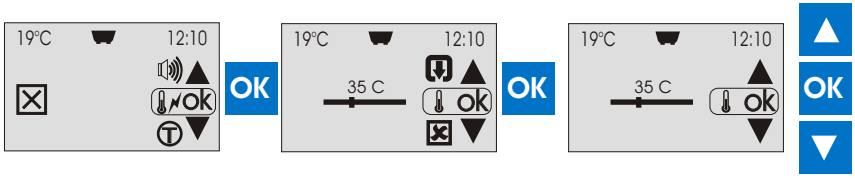
The user can switch off by holding down ◄ or ▼. Or by selecting short ☒ on the menu.

Set audio FM/AM/CD (option):
Select audio symbol (🔊) and confirm with OK button. Then set your station and volume by selecting with the scroll buttons ▲ ▼ and confirming with OK.
If you want audio on select 🔊 and confirm with OK. Switch off audio by selecting the ☒ symbol and then confirming with OK.



Stop audio
Vol volume
FM FM band
AM AM band
CD CD input
Leave audio menu (audio on)

Heating:
If your system has a heating unit then the water temperature is displayed in the upper left corner or the LCD screen. It is not possible to switch the heating unit on without the first hydro pump running.

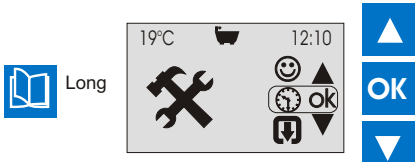


exit heating menu (heating on)
set temperature
exit heating menu (heating off)

Exit (close menu)

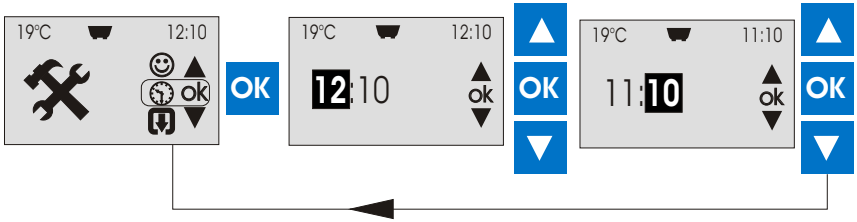
4.2.2 Extended menu (user programmer options).

If you press and hold down this button (3 seconds) you can do the following:



Program user
Set time
Exit (close menu)

Set time:
If there is a power cut then you will have to re-set the time.



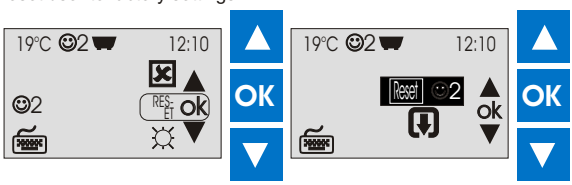
Set user:
If you program a user then only the programmable/settable functions will be part of your system For example, if you have no radio, then this will not be displayed on the LCD screen. The system allows you to program 6 users.

The following maximum number of settings are possible for each user.

- Exit user menu (settings will be saved)
- Reset user to factory settings
- Switch halogeen lighting on/off
- Switch colour therapy on/off
- Audio
- heating
- Pulsation duration hydro + ground system together
- Mini jets (foot + back) of hydro system
- Foot jets of hydro system
- Back jets of hydro system
- Hydro
- Aero (ground system)
- Exit user menu (settings will **not** be saved)

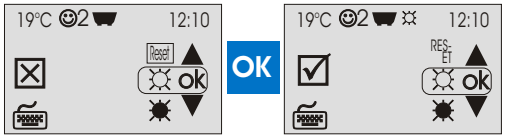
Exit user menu (settings will be saved).

Reset user to factory settings.

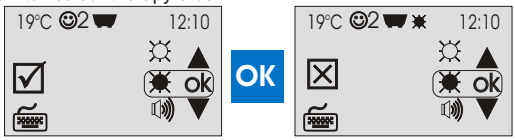


Switch halogen lighting on/off

If you are on the required selection you can switch the option on or off by pressing the OK button. The symbol ☒ changes to ☑. (☒-off, ☑-on)



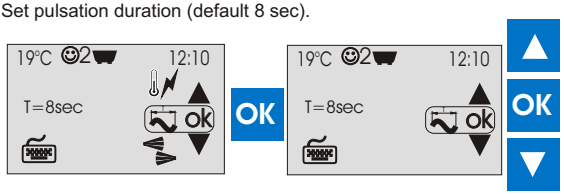
Switch colour therapy on/off.



Set audio (see also short menu).

Set heating (see also short menu).

Set pulsation duration (default 8 sec).



maximum 25 and minimum 8 seconds

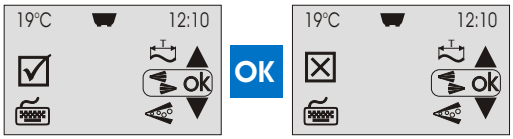
Your whirlpool can be supplied with valve functions in the hydro system or with pump-controlled outputs. Depending on the system chosen.

Valve control

- Switch minijets on/off (valve function)
- Switch foot jets on/off (valve function)
- Switch back jets on/off (valve function)

Valve controlled jet outputs

Set your preference, e.g.



Pump-controlled

- Set minijets
- Set foot jets
- Set backjets
- Set hydro

Pump-controlled hydro functions

- Set aero

Pump-controlled floor functions

For each pump the output can be set as constant or pulsing. Depending on requirements the power per motor can be limited to 70% for pulsation and 50% at constant output.

5.0 Whirlpool Jets

5.1 Aero jet

The aero jet has a chrome surface finish. To clean the jet, the inner part can be taken out with a small screwdriver.

As the word Aero already indicates, this is a jet for air flow. The air swirls through the water, which gives a relaxing effect. The air from the aero jet opening enters the bath with a certain speed. This may be perceived as cold. The jet house itself becomes somewhat hot.

BE AWARE: Be very careful not to damage the chrome surface.
After cleaning the jet house, the inner part can be pushed back. The inner part is clamped by an O-ring.

5.2 Hydro jets

Hydro jets have a mixed flow of water and air. This results in a powerful ray with a massaging effect. The RIHO whirlpools and thermae whirlpools are equipped with different types of hydro jets. The type of jets depends on the choice of the system. The functioning of all hydro jets will be described below.

ATTENTION: Because some type of jets can be closed by turning, it is possible to close the jets while the motor is running. Don't do this and make sure at least one closable jet is open at all times. Otherwise the motor can get overheated because of too much pressure. Lisa, Lisette and Dana have two separate controlled systems. The remark is valid for both systems.

5.2.1 Hydro back- and side jet

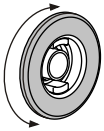
Hydro jets have a complete chrome surface finish. The flow can be set, by pointing the opening in the middle of the jet in the desired direction. This movement is quite heavy. Otherwise the opening would easily turn back in its straight position, as a result of the water- and air pressure. The back and the sides of the whirlpool have the same type of jets. The jets in the back are smaller than the ones on the side.

5.2.2 Hydro Super jet

The Hydro Super jet has a complete chrome surface finish. The flow through the jet can be directed stronger or softer. By turning the inner part of the jet by hand the flow can be adjusted. When the inner part is turned clock wise, the flow will be less heavy.

5.2.3 Thermae Powerpool rotation jet

The outer ring of the jet has a chrome surface finish, the inside of the jet is made of white plastic. This jet is only used in some whirlpools of Thermae line. By turning the outer ring of the jet the power of the flow can be determined. The inner part rotates automatically, which results in a massaging effect.



5.2.4 Thermae Powerpool jet

The outer ring of the jet has a chrome surface finish, the inside is made of white plastic. This jet is only used in some whirlpools of Thermae line. By turning the outer ring of the jet the power of the flow can be determined. This jet produces a straight massive ray of water.

6.0 Protection system

If there is insufficient water in the bath, the system will not switch on in order to prevent the pumps running dry. In addition all motors are fitted with a thermal switch. These will switch off the motors in the event of problems.

6.1 Normal temperature of bath water.

The recommended normal temperature of bath water is 38°C.

6.2 Disinfection and cleaning.

Application of (Riho) Cleaning products; Cleaning liquid, Cleaning/disinfect tablets and Soda

Whirlpool Cleaning Products are for cleaning/disinfecting the Hydro System. An Aero system blows air only and can't/doesn't need to be cleaned with a special product.

GB

Two products;
1. Riho Cleaning Liquid
2. Riho Cleaning/disinfect Tablets (not available in Belgium)
3. Soda

The RIHO cleaning products are mild in composition and ideal to use in our RIHO whirlpools.

During normal use of the whirlpool it is advisable to clean it every 4 to 5 whirlpool turns, interspersed with cleaning liquid and tablets. By little use of the whirlpool, it is advisable to clean the bath in advance, so that the system is clean before using.

1. Clean Liquid / Cleaning Fluid (part number REDIS002)
This is for the cleaning of the hydro system. You fill the tub to just above the upper jets.

Fill the clean-tank with clean liquid. The whole bottle fits in the tank and lasts for 5 cycles.
Press the 2 outer drops on the keyboard simultaneously and keep them for a few seconds. The clean system automatically turns on. After that, the whirlpool can be drained.

2. Cleaning Tablets (item number REDIS001)
Cleaning Tablets are to disinfect the Hydro System. You fill the tub to just above the upper jets. The first time you use the Clean Tablets, add 5 tablets to the water (For subsequent sessions two / three tablets each time are sufficient). Turn the Hydro system manually on and off (1 ½ to 2 minutes each time, repeat this 4-5 times for good flushing of all tubes and hoses). After that, the whirlpool can be drained.

3. Major cleaning cycle with Soda
When you see black flakes in the water during the use of the whirlpool system we recommend cleaning with soda. Fill the whirlpool just above the upper jet. Add a bag of soda to the water and make sure it is resolved because otherwise it can cause scratches. Turn the Hydro system manually on and off (1 ½ to 2 minutes each time, repeat this 4-5 times for good flushing of all tubes and hoses). This bath water can soak overnight so that it loosens stubborn dirt.

In the morning you repeat the process and you can empty the dirty water from your whirlpool.

For stubborn stains, the procedure may be repeated two or more times. The black flakes would be less at every turn and eventually disappear.

Warning: The following points are essential when using Riho Clean/Disinfection tablets and Riho Clean Plus liquid:
- Keep the products out of reach of children.
- Avoid contact with the eyes and face.
- Not for internal use.
- In the case of skin contact, wash with water.
- Do not inhale.
- Do not sit in the bath after these products have been added.

6.3 Tips for users

- In case of health problems: Consult your doctor before using the whirlpool system.
- The maximum recommended duration for using the whirlpool is 10 minutes.
- The whirlpool system should not be used immediately after a meal.
- Bath foam (bubble bath), shampoos or soap should only be used after using the whirlpool system. If these media are used prior to operation or when the Whirlpool bath is in operation, a great deal of foam will be generated.

7.0 Exceptional maintenance

Attention: Always switch off the power supply before carrying out any maintenance or other work.
The whirlpool service department cannot provide a service if there are no inspection hatches or the inspection hatches are too small.

ATTENTION:
Always switch off the power supply before carrying out any maintenance or other work.

For extraordinary maintenance, please approach the authorised Service Centres. The guarantee will become void if the product is used improperly by unauthorised personnel, and the manufacturer's liability for the safety of the product will be cancelled immediately. If any parts fail, only use original and approved spares, otherwise the guarantee will become void and the liability of the manufacturer for the safety of the product will be cancelled immediately.

Detecting and resolving problems.

Problem 1.
The whirlpool does not work when the on/off switch is pressed.

Cause 1:
Is the power supply to the whirlpool switched on?

Solution 1:
Is the whirlpool properly connected?
Check the fuses.
Is the power supply switched on?
Cause 2:
Is the water level high enough (bath full indication)?
The electronically controlled whirlpools are equipped with a level switch that only allows the system to operate if the water level is high enough.
If sufficient water is available, check whether the water level switch has come loose during transport or installation work.

Solution 2:
Top up the water if there is insufficient water.
If the level switch is not working, contact the Riho Service department.

Problem 2.
Not all hydrojets or floor jets have a powerful flow.

Cause 1:
In some electronically operated whirlpools the various jets can be switched on and off separately whilst the remaining hydro jets are functioning.

Solution 1:
See basic function operation. With the ▲ or ▼ button the diverse combinations can be run through one after the other.

Solution 2:
Switch off the power, wait for a minute, then switch it on again, whereby the electronic system will be reset. If the problem persists ring the service department.

Problem 3.
The cleanpool system does not work.

Cause 1:
No cleanpool fluid in the reservoir.

Solution 1:
Top up cleaning fluid

Cause 2:
No cleaning fluid is retained in the reservoir because the reservoir shut off valve is open.

Solution 2:
Check lower magnetic valve on the cleanpool tank and fit new valve if necessary. If fitting new valve ring the service department.

GB

Problem 4.
Light or colour therapy does not work.

Cause:
Water level not high enough (bath full indication)?

Solution:
Top up water.

Problem 5.
The whirlpool does not function.

Cause:
The electronic system may malfunction due to pressing down the control keys several times, whether accidentally or otherwise.

Solution:
Switch off the power, wait for a minute, then switch it on again, whereby the electronic system will be reset. If the problem persists, call the Service department.
Problem 6.
Heating does not work.

Cause:
Heating is connected to the primary operating hydro system

Solution:
Does the first hydro system start? If not, switch this on first and then the heating.
If the problem persists, call the Service department.

Problem 7.
The system does not start.

Cause:
The hydro or aeromotor is equipped with a thermal safety switch as a protection. In case of overheating, the motor will switch off. A possible cause may be that the motor is blocked.

8.0 Service Request Form

For direct service requests, please refer to the back page for a list of the Service Centres nearest to you.
For a ”Riho service query” see Fig.7.

Attention: According to the Installation instructions, it is necessary to have an inspection hatch of at least 40 (b) x 50 (h) cm in the case of a walled-in type of installation.

The room must be free of obstacles, so that work can be carried out.
In the case of a plastic panel sealed with sealant, you are requested to remove the sealant before our service technician arrives.

Fig. 7

RIHO

RIHO International b.v.
Hermesstraat 10 5047 TS Tilburg Holland
Postbox 4149 5004 JC Tilburg Holland

Tel: +31 (0) 13 5728728
Fax: +31 (0) 13 5720262

ABN-AMRO bank Tilburg 52.25.29.054
Giro No. of ABN-AMRO bank 1091055
Chamber of Commerce No. 1802298 Tilburg

RIHO SERVICE REQUEST

Wholesale/Retail:

Company: _____ Contact person: _____

Place: _____ Telephone number: _____

Fax number: _____ Your Reference: _____

E-mail: _____

Fitter/Installer:

Company: _____ Place: _____

Fax number: _____ Telephone number: _____

End user:

Commission: _____ Address: _____

Post Code: _____ Place of Residence: _____

Telephone (Home): _____ Telephone (Office): _____

Fax: _____ E-mail: _____

Product:

Bath – Panel bath – Whirlpool – Shower Tray – Panel shower tray – Steam Cubicle – SAUNA – GLASS Panels

Name/Type: _____ Serial number: _____

Colour: _____ Date of purchase: _____

Invoice number/Reference (for Riho Int. BV) on which product was delivered:

Whirlpool:
System:
❍ hydro electronic
❍ hydro/aero electronic
❍ hydro/spydro mechanical aero electronic
❍ hydro mechanical
❍ spydro mechanical

Steam Cabin:
Execution:
❍ basic
❍ professional

Is there a service hatch? YES/NO
with a dimension of at least 40x50 cm

Reason for service request:

_____

_____

_____

Yours sincerely,

All agreements entered into with us are subject to our general conditions of payment and delivery, deposited with the clerk of the court at Breda on 5 January 1994 under number 3/94.

9.0 Terms and Conditions of Guarantee

1 We provide a guarantee for the good construction and the material of the goods supplied by us, subject to the condition that we shall replace all components free of cost, which develop defects within three years of delivery due to inadequate construction and/or defective materials. The components in question should be sent to us free of cost for this purpose. We shall not bear the cost of dismantling or installing these components.

1a Riho products made of acrylic are subject to a guarantee for colour and form consistency for a period of five years.

1b Cleaning of Riho products should be done with products prescribed by Riho.

1c. For wood, wash basins and treated materials there is a warranty period of 1 year. Conditions are that the space is well-ventilated (larger than 10 times the room volume per hour) and compliance with the maintenance regulations.

2 The guarantee shall never cover faults that arise due to normal wear and tear, improper handling or incorrect maintenance or due to changes or repairs by or on behalf of the customer and/or the purchaser or by third parties.

3 The guarantee shall apply only and to the extent that the customer and/or purchaser has fully fulfilled his obligations toward us.

4 No guarantee shall be provided for components within the broadest meaning of the term, that have not been supplied or installed by us.

5 The guarantee shall in no case apply to anything more than the free supply of new components. We shall never be liable for any other damage by whatever name called, which may be suffered by the customer and/or the purchaser.

6 If we replace components in fulfilment of the guarantee obligations, the components that have been replaced become our property.

7 If the customer and/or purchaser lay down the condition that certain specific materials or components should be supplied by manufacturers or suppliers specified by name, the responsibility and/or guarantee period accepted by us will not exceed the responsibility and/or guarantee period given to us by the manufacturer or supplier of these specified components or materials.

8 Complaints about defects in materials supplied and/or work done should be notified to us in writing within 7 days of the discovery of the same.

9 We do not accept any liability whatsoever for an design developed by the customer and/or purchaser or by third parties acting on behalf of the customer and/or purchaser, nor for the material specifications or calculations if any relating to such design.

10 We shall never be bound to compensate direct or indirect damage suffered, no matter by what name known. We are also not liable for damage that may be caused to the properties of the customer/purchaser or of third parties by or during the installation of the goods delivered.

11 We shall never be liable to compensate loss of business and profits or consequential damages no matter by what name known, arising due to any cause whatsoever, including delay in the delivery of the goods sold and/or installation.

12 The guarantee of the Riho product shall lapse if the product is used outside the country of purchase.